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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,363	07/04/2004	Hung-Chi Wang	LKSP0041USA	4362
27765	7590	11/15/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			OHIRA, MARISSA A	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/710,363	Applicant(s) WANG ET AL.	
	Examiner Marissa A. Ohira	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

RODNEY FULLER
PRIMARY EXAMINER



Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/13/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on January 8, 2003. It is noted, however, that applicant has not filed a certified copy of the 093100411 application as required by 35 U.S.C. 119(b). The transmittal form filed July 8, 2004 indicates that a certified copy was provided, however, it is not of record.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the current drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step motor must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4-6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Poschenrieder (U.S. 5712698).

Regarding claim 1, Poschenrieder discloses “a light source (Figure 1, reference no. 10); a lens set (Fig. 1 ref. no. 14); and a shutter device (Fig. 1, ref. no. 12) having a variable opening area and locating between the light source and the lens set.” (See column 3, lines 29-31 for a description of the shutter device)

Regarding claim 2, Poschenrieder discloses, “the shutter device is comprised of a plurality of triple-blade shutters.” (See Figure 4; also column 5, lines 4-9)

Regarding claims 4 and 8, Poschenrieder discloses, “wherein size of the variable opening area is decided in accordance with intensity of the light source.” Column 4, lines 17-23, of Poschenrieder teach that each triple-blade shutter can be individually adjusted such that each exposure is “optimized for...a specific lithographic step.” Part of the lithographic process is the adjustment of the exposure according to the intensity of the light source, so it would be understood by one having ordinary skill in the art that Poschenrieder’s teaching in column 4 includes deciding what the size of the variable opening is in accordance with the intensity of the light source.

Regarding claims 5 and 9, Poschenrieder discloses, “wherein size of the variable opening area is decided in accordance with a dose required in manufacturing process.” (See column 4, lines 17-23)

Regarding claim 6, Poschenrieder discloses “a light source (Fig. 1, ref. no. 10); a lens set (Fig. 1, ref. no. 14); and a shutter device comprising a plurality of triple-blade shutters (Fig. 1, ref. no. 12; Fig. 4) and locating between the light source and the lens set.” (See also column 5 lines 4-9)

Regarding claim 10, Poschenrieder discloses “providing a shutter device having a variable opening area in a photolithograph system; adjusting size of the variable opening area in accordance with a dose of an photolithography process; and performing the photolithography process.” (See column 4, lines 17-23; see also discussion of claims 4 and 5 above)

6. Claims 1, 4, 5 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawahara (U.S. 6876437).

Regarding claim 1, Kawahara discloses “a light source (Fig. 1, ref. no. 1); a lens set (Fig. 1, ref. no. 14); and a shutter device (Fig. 1, ref. no. 11) having a variable opening area and locating between the light source and the lens set.” (See column 7, lines 61-65 for a description of the shutter device)

Regarding claim 4, Kawahara discloses, “wherein size of the variable opening area is decided in accordance with intensity of the light source.” (See column 7, lines 29-34)

Regarding claim 5, Kawahara discloses, “wherein size of the variable opening area is decided in accordance with a dose required in manufacturing process.” (See column 10, lines 32-47)

Regarding claim 10, Kawahara discloses, “providing a shutter device (Fig. 1, ref. no. 11) having a variable opening area in a photolithograph system (Fig 4 and 5, also column 7, lines 61-65); adjusting size of the variable opening area in accordance with a dose of an photolithography process (column 10, line 32-47); and performing the photolithography process.”

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Regarding claims 2, 3, 6-9, and 11-13, Kawahara discloses all the structure set forth in the claims (see 102 rejections above) except for the limitation of claims 2, 3, 6-9, and 11-13 wherein the shutter device comprises of a plurality of triple blade shutters.

However, it would have been obvious to one having ordinary skill in the art at the time invention was made to omit a blade from the four-bladed shutter as taught by Kawahara to form the three-bladed shutter as claimed by the applicant, since it has been held that the omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlsen*, 136 USPQ 184.

Regarding claims 3, 7 and 13, Kawahara discloses a system and method “wherein the shutter device utilizes a step motor to adjust relative positions of the triple-blade shutters.” (See column 7, lines 61-97, and column 8, lines 1-18)

Regarding claim 12, Kawahara discloses, “wherein the step of adjusting size of the variable opening area comprises rotating the second triple-blade shutter to cause the blades of the first and second triple-blade shutters to at least partially overlap.” (See column 8, lines 32-37)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sato (U.S. 2003/0002021), Anzai (U.S. 4624551) shows the use of a triple-blade shutter in a lithographic process and system.

Nishi (U.S. 5473410), and Vibet (U.S. 6798496) show shutter devices with variable openings.

Woodier (U.S. 3966313), Phillips (U.S. 4350428), Baumann (U.S. 6296359), Kaneko (U.S. 4669841), and Horio (U.S. 4571629) show rotary shutter devices, and Woodier, Phillips, Kaneko, and Horio show that the devices comprise of multi-bladed shutters.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa A. Ohira whose telephone number is (571) 272-8646. The examiner can normally be reached on M-F 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa A. Ohira
Examiner
Art Unit 2851

November 8, 2005

RODNEY FULLER
PRIMARY EXAMINER
